CLAIMS

1. A storage system comprising a plurality of units of storage, each unit of storage storing digital data, each unit of storage accessed by specifying an address and a time.

2. The storage system of claim 1, further comprising one or more physical storage devices on which the digital data are stored.

3. The storage system of claim 2, wherein the address comprises a device identifier and a location identifier.

4. The storage system of claim 3, wherein the device identifier identifies a physical storage device.

5. The storage system of claim 3, wherein the device identifier identifies a logical device.

6. The storage system of claim 1, wherein the time specifies that the digital data retrieved from the address is the most recent digital data that was written to the address at or before the time.

7. The storage system of claim 1, wherein the time is explicitly specified in a request to access a unit of storage.

8. The storage system of claim 1, wherein the time is specified in a command to the storage system separate from a request to read a unit of storage.

9. The storage system of claim 1, wherein the storage system creates a virtual device, wherein the time is specified when the virtual device is created, and is applied when the virtual device is accessed.

10. The storage system of claim 9, wherein new data is written to the virtual device without removing the data that was written after the time specified when the virtual device was created.

11. The storage system of claim 1, wherein a command to the storage system specifies that the time is implicitly the current time.

12. The storage system of claim 1, wherein the time is specified relative to the current time.

13. The storage system of claim 1, wherein the units of storage are blocks.

14. A method of accessing data stored on a storage device, the method comprising:

specifying an address and a time to access the most recent data stored on the storage device at the address at or before the time.

15. The method of claim 14, wherein the address comprises a device identifier and a location identifier.

16. The method of claim 14, wherein specifying the time comprises implicitly specifying the time.

17. The method of claim 16, wherein implicitly specifying the time comprises sending a command to the storage system to use the current time as the time.

18. The method of claim 14, further comprising presenting a virtual storage device for which the time is implicitly set to the specified time for all addresses of the virtual storage device.

19. The method of claim 18, further comprising writing data to the virtual storage device.

20. The method of claim 14, wherein specifying the time comprises specifying the time relative to the current time.

21. Apparatus for storing data, the apparatus comprising:

a storage appliance that interfaces with a computer;

one or more physical storage devices that interface with the storage appliance, each such storage device controlled by the storage appliance;

wherein the storage appliance presents one or more virtual storage devices to the computer, and wherein data on each of the virtual storage devices is accessed by specifying an address and a time.

22. The apparatus of claim 21, wherein the time specifies that the digital data retrieved from the address is the most recent digital data that was written to the address at or before the time.

23. A data packet corresponding to a storage device command, the data packet comprising:

a storage device address identifying the location of one or more units of storage; and

a time specification specifying data most recently stored at the storage device address at or before a specified time.

24. The data packet of claim 23, wherein the storage device command is a write command and the point in time is the present time.

25. The data packet of claim 23 wherein the storage device command is a read command and the point in time is the past time.